

REMARKS

Claims remaining in the present application are Claims 1, 4 - 8, 11, 13-15 and 17 - 21. Claims 1, 5, 7, 8, 13, 14, 18, 19, 20 and 21 have been amended. Claim 16 has been cancelled without prejudice. No new matter has been added as a result of these amendments.

Support for material added by amendment in Claims 1, 5, 13, 14, 18 and 20, can be found in the recitation and description of graphics card and/or a graphics processing unit in Figure 2 and on pages 4 and 5 of the Specification.

CLAIM REJECTIONS

35 U.S.C. §112

Claims 13 and 20 are rejected under 35 U.S.C. §112, first paragraph, as containing newly claimed subject matter.

Claim 13

The rejection indicates, "support could not be found in the specification as originally filed, for the newly claimed subject matter that the control function is determined based only on the activated buttons." The Applicants respectfully reiterate that Figure 3 of the present application and the accompanying description of Figure 3 (beginning on page 5 line 10 of the specification) provide clear support for an embodiment of the present invention reflected by this claim language. Referring to block 20 of Figure 3, the only user input required in the

entire process to control an audio visual device is the activation of a button on the remote. This causes a signal to be sent from the remote that starts the determination process and performs the desired function. No other user input such as clicking on a separate mouse, clicking on a separate keyboard, selecting a function in a graphical user interface with a cursor, or manipulating a separate selector switch not on the remote is necessary to select an item to control or to send a command to control the item.

Further, on page 4 lines 17 - 20, the specification clearly indicates that the remote control provides a single device with which the user can control multiple audio video devices associated with a personal computer. Based on these disclosures in the original specification, the Applicants respectfully submit that there is clear support in the specification for the claim that the control function is determined based only on the activated buttons. Therefore, in light of the descriptions from the specification, Claim 13 is believed to overcome the 35 U.S.C. §112 rejection, and it is respectfully requested that the rejection be withdrawn.

Claim 20

The rejection indicates, support could not be found in the specification, as originally filed, for the input of data signals from the single control device is the only input required for translating the received data signals. The objected to text has been removed by amendment.

The rejection indicates, "support could not be found in the specification as originally filed, for the newly claimed subject matter that a graphical user interface is not necessary." The Applicants respectfully reiterate again that the specification teaches an embodiment of the present invention, "wherein a graphical user interface is not necessary."

As an example, in one embodiment, interaction is taught in the specification as being between the remote control and the tuner box, the tuner box and graphics card, and the graphics card and the personal computer. See e.g., page 4 lines 12 - 16 of the specification. See also e.g. Figure 2 and Figure 3 of the specification. Interaction with a graphical user interface is not required at any step in the cited embodiment taught on page 4, lines 12 - 16 of the specification. Neither is a graphical user interface necessary in the system diagram of Figure 2 or the process of Figure 3 of the specification.

The embodiments of the present invention clearly disclose a means and a process for controlling audio visual devices associated with a personal computer, and interaction with a graphical user interface in a personal computer is not necessary in that process. A preferred method of control is disclosed and described in Figure 3 of the specification. In this method, the only necessary input is selection of a button on a remote. Further, on page 4 lines 17 - 20, the specification clearly indicates that the remote control provides a single device

with which the user can control multiple audio video devices associated with a personal computer. Certainly, a personal computer is involved in this process, and it is therefore possible to interact with a graphic user interface. However, it is not necessary.

The rejection seemingly suggests that it is impossible or out of the ordinary to perform actions with a personal computer without using a graphic user interface, and therefore some sort of positive disclosure should have taken place. This is simply not supported in the record, and an assortment of interactions with a personal computer can be used that do not require a graphical user interface. For instance, personal computers and components within them can be interacted with via networks control signals, via keyboard shortcut commands, via mechanical inputs such as inserting an audio CD that is automatically played, or, as in the embodiments of the present invention, via buttons on a remote control device. These are well known to one of ordinary skill in the art. Therefore, Claim 20 is believed to overcome the 35 U.S.C. § 112 rejection, and it is respectfully requested that the rejection be withdrawn.

35 U.S.C. §103

Claims 1, 4 and 14-18

Claims 1, 4 and 14 - 18 are rejected under 35 U.S.C. §103(a) as being unpatentable over Schindler et al. U.S. Patent No. 5,675,390 (hereinafter, Schindler) in view of Tsurumoto et al. U.S. Patent No. 4,817,203 (hereinafter,

Tsurumoto) further in view of Stecyk et al., U.S. Patent Application Publication 2002/0171763 (hereinafter Stecyk). The Applicants have reviewed the cited references, and respectfully submit that the embodiments of the present invention as recited in Claim 1, 4 and 14-18 are not rendered obvious by Schindler in view of Tsurumoto further in view of Stecyk.

The Examiner is respectfully directed to independent Claim 1, which recites that an embodiment of the present invention is directed to a method for remotely controlling audio/visual devices within a personal computer, the method comprising: "accessing a look-up table within a graphics card of said PC, said lookup table having a plurality of mappings between each of the data signals from said single control device and an appropriate control function for each of the A/V devices." Claim 4 depends from independent Claim 1, and recites further limitations to the claimed invention.

The Applicants submit that Schindler, Tsurumoto, and Stecyk, are silent with regard to, "accessing a look-up table within a graphics card of said PC, said lookup table having a plurality of mappings between each of the data signals from said single control device and an appropriate control function for each of the A/V devices," as recited in Claim 1. Therefore, Claim 1 is not rendered obvious by Schindler in view of Tsurumoto further in view of Stecyk.

The Examiner is respectfully directed to independent Claim 18, which recites that an embodiment of the present invention is directed to a method for remotely controlling audio/visual (A/V) devices within a personal computer (PC), the method comprising the steps of:

... (b) storing the mapping in a look-up table in a graphics card in the PC;

(c) receiving within the graphics card a first data signal corresponding to a selected one of the first set of buttons;

(d) translating within the graphics card the first data signal to a first control function utilizing the look-up table to select operation of a particular A/V device coupled to a PC;

(e) receiving within the graphics card a second data signal corresponding to a selected one of the second set of buttons; and

(f) translating within the graphics card the second data signal to a second control function utilizing the look-up table to control operation of the particular A/V device coupled to the PC, wherein the selected one of the second set of buttons is automatically associated with an appropriate control function for the particular A/V device.

Independent Claim 14 recites a similar limitation to Claim 18. Claims 15 - 17 depend from independent Claim 14 and recite further limitations to the claimed invention.

The Applicants submit that Schindler, Tsurumoto, and Stecyk, are silent with regard to “storing the mapping in a look-up table in a graphics card in the PC,” as recited in Claim 18 and as similarly recited in Claim 14. Therefore, Claims 14 and 18 are not rendered obvious by Schindler in view of Tsurumoto further in view of Stecyk.

Additionally, in regard to Claim 18, the Applicants submit that Schindler, Tsurumoto, and Stecyk, are silent with regard to: “receiving within the graphics

card a first data signal corresponding to a selected one of the first set of buttons,” as recited in Claim 18; “translating within the graphics card the first data signal to a first control function utilizing the look-up table to select operation of a particular A/V device coupled to a PC,” as recited in Claim 18; “receiving within the graphics card a second data signal corresponding to a selected one of the second set of buttons,” as recited in Claim 18; and “translating within the graphics card the second data signal to a second control function utilizing the look-up table to control operation of the particular A/V device coupled to the PC, wherein the selected one of the second set of buttons is automatically associated with an appropriate control function for the particular A/V device,” as recited in Claim 18. Consequently, Claim 18 is not rendered obvious by Schindler in view of Tsurumoto further in view of Stecyk.

Therefore, the Applicants respectfully submit that Schindler in combination with Tsurumoto and further in view of Stecyk does not render obvious the present claimed invention as recited in independent Claims 1, 14 and 18. As such, the Applicants submit that Claims 1, 14 and 18 overcome the Examiner’s basis for rejection under 35 U.S.C. §103(a), and are in condition for allowance. Accordingly, the Applicants also respectfully submit that Schindler in combination with Tsurumoto and further in view of Stecyk does not render obvious the present claimed invention as is recited in Claim 4 dependent from Claim 1, or Claims 15 and 17 dependent from Claim 14, and that Claim 4, 15 and 17 overcome the basis for rejection under 35 U.S.C. §103(a), through

dependence on an allowable base claims, and are therefore also in condition for allowance.

Claims 5-8, 11, 13 and 19-22

Claims 5 - 8, 11, 13 and 19 - 22 are rejected under 35 U.S.C. §103(a) as being unpatentable over Schindler, Tsurumoto, and Stecyk as applied to Claims 1, 4 and 14 - 18 above, further in view of Bauersachs et al. Publication Number 2004/0025189 (hereinafter, Bauersachs). As noted in the previous response, Claim 22 has been cancelled. The Applicants have reviewed the cited references, and respectfully submit that the embodiments of the present invention as recited in Claims 5 - 8, 11, 13, and 19 - 21 are not rendered obvious by Schindler, Tsurumoto, and Stecyk in further view of Bauersachs.

The Examiner is respectfully directed to independent Claim 5, which recites that an embodiment of the present invention is directed to a system for remotely controlling a plurality of audio/visual (A/V) devices, the system comprising:

...a graphics card coupled to the PC, the graphics card for translating the data signals to appropriate control functions,
wherein the selectable buttons are automatically associated with the appropriate control functions for a particular A/V device; and
a graphics processing unit coupled within the PC based graphics card, said graphics processing unit for controlling the plurality of A/V devices utilizing the appropriate control functions.

Claims 6 - 8 and 11 depend from independent Claim 5 and add further limitations to the claimed invention.

The Applicants submit that Schindler, Tsurumoto, Stecyk, and Bauersachs are silent with regard to “a graphics card in the PC, the graphics card for translating the data signals to appropriate control functions, wherein the selectable buttons are automatically associated with the appropriate control functions for a particular A/V device,” as recited in Claim 5; and are also silent regarding, “a graphics processing unit within the PC based graphics card, said graphics processing unit for controlling the plurality of A/V devices utilizing the appropriate control functions,” as recited in Claim 5. Consequently, Claim 5 is not rendered obvious by Schindler in view of Tsurumoto, Stecyk and further in view of Bauersachs.

The Examiner is respectfully directed to independent Claim 13, which recites that an embodiment of the present invention is directed to a method for remotely controlling a plurality of audio/visual (A/V) devices within a personal computer (PC) utilizing one remote control, the remote control having a plurality of buttons, the method comprising:

...determining automatically within a graphics card in the PC a control function for a particular A/V device associated with the data signal based only on the activated at least one of the plurality of buttons and the particular A/V device the signal is associated with;
and

providing information from the graphics card for controlling the particular A/V device based on the control function.

The Applicants submit that Schindler, Tsurumoto, Stecyk, and Bauersachs are silent with regard to, “determining automatically within a graphics card in the PC a control function for a particular A/V device associated with the data

signal based only on the activated at least one of the plurality of buttons and the particular A/V device the signal is associated with,” as recited in Claim 13; and are also silent regarding, “providing information from the graphics card for controlling the particular A/V device based on the control function,” as also recited in Claim 13. Consequently, Claim 13 is not rendered obvious by Schindler in view of Tsurumoto, Stecyk, and further in view of Bauersachs.

The Examiner is respectfully directed to independent Claim 19, which recites that an embodiment of the present invention is directed to a system for remotely controlling a plurality audio/visual (A/V) devices within a personal computer (PC), the system comprising:

...the PC having a graphics board for automatically translating the data signals to appropriate control functions for selecting and controlling operation of the plurality of A/V devices utilizing a look-up table wherein a first set of the selectable buttons are mapped to select one or more A/V devices and a second set of the selectable buttons are mapped to control operation as a function of the selected one or more A/V devices.

The Applicants submit that Schindler, Tsurumoto, Stecyk, and Bauersachs are silent with regard to, “the PC having a graphics board for automatically translating the data signals to appropriate control functions for selecting and controlling operation of the plurality of A/V devices utilizing a look-up table wherein a first set of the selectable buttons are mapped to select one or more A/V devices and a second set of the selectable buttons are mapped to control operation as a function of the selected one or more A/V devices,” as recited in

Claim 19. Consequently, Claim 19 is not rendered obvious by Schindler in view of Tsurumoto, Stecyk, and further in view of Bauersachs.

The Examiner is respectfully directed to independent Claim 20, which recites that an embodiment of the present invention is directed a computer readable medium for remotely controlling audio/visual (A/V) devices within a personal computer (PC), the method comprising:

mapping each button on a single remote control device to predetermined key codes in a look-up table stored in a graphics card in the PC, wherein a first set of buttons select one or more A/V devices and a second set of buttons control operation of each of the selected A/V devices and wherein a graphical user interface is not necessary;

translating automatically data signals from the single remote control to device functions utilizing the look-up table, wherein the data signals include one or more of the predetermined key codes, and wherein an input of the data signals from the single remote control is the only input required for the translating; and

controlling selection and operation of the A/V devices via the graphics board in the PC based on the device functions.

The Applicants submit that Schindler, Tsurumoto, Stecyk, and Bauersachs are silent with regard to, "mapping each button on a single remote control device to predetermined key codes in a look-up table stored in a graphics card in the PC..." as recited in Claim 20; and are also silent regarding, "controlling selection and operation of the A/V devices via the graphics board in the PC based on the device functions," as is also recited in Claim 20. Consequently, Claim 20 is not rendered obvious by Schindler in view of Tsurumoto, Stecyk, and further in view of Bauersachs.

The Examiner is respectfully directed to independent Claim 21, which recites that an embodiment of the present invention is directed a system for remotely controlling a plurality of audio/visual (A/V) devices within a personal computer (PC), the system comprising:

...the PC having a graphics board including a button mapping software for automatically translating the data signals to appropriate control functions and a software driver for providing information for controlling the plurality of A/V devices according to the appropriate control function, wherein a first set of the data signals are mapped to select one or more A/V devices and a second set of the data signals are mapped to control operation of the selected one or more A/V devices.

The Applicants submit that Schindler, Tsurumoto, Stecyk, and Bauersachs are silent with regard to, “the PC having a graphics board including a button mapping software for automatically translating the data signals to appropriate control functions and a software driver for providing information for controlling the plurality of A/V devices according to the appropriate control function, wherein a first set of the data signals are mapped to select one or more A/V devices and a second set of the data signals are mapped to control operation of the selected one or more A/V devices,” as is recited in Claim 21. Consequently, Claim 21 is not rendered obvious by Schindler in view of Tsurumoto, Stecyk, and further in view of Bauersachs.

Therefore, the Applicants respectfully submit that neither Schindler, Tsurumoto, Stecyk, nor Bauersachs, renders obvious the present claimed invention as recited in independent Claims 5, 13, 19, 20, or 21. As such, the

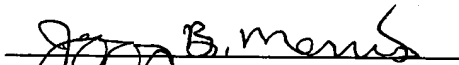
Applicants submit that independent Claims 5, 13, 19, 20 and 21 all overcome the Examiner's basis for rejection under 35 U.S.C. §103(a), and are in condition for allowance. Accordingly, the Applicants also respectfully submit that neither Schindler, Tsurumoto, Stecyk, nor Bauersachs renders obvious the present invention as is recited in Claims 6 - 8 and 11 dependent from Claim 5. As such, the Applicants respectfully submit that Claims 6 - 8 and 11 overcome the basis for rejection under 35 U.S.C. §103(a), through dependence on an allowable base claim, and are therefore also in condition for allowance.

SUMMARY

In light of the above-listed amendments and remarks, Applicants respectfully request allowance of the pending Claims. The Examiner is urged to contact Applicants' undersigned representative if the Examiner believes such action would expedite resolution of the present Application.

Respectfully submitted,
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